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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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JOSEPH M. SAUER
JONES DAY REAVIS & POGUE
NORTH POINT, 901 LAKESIDE AVENUE
CLEVELAND, OH 44114

EXAMINER

WOZNIAK, JAMES S

ART UNIT PAPER NUMBER

2626

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/768,509

Applicant(s)

LAZARIDIS ET AL.

Examiner

James S. Wozniak

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-23, 28-32 and 37-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-23, 28-32 and 37-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. In response to the office action from 3/21/2006, the applicant has submitted an amendment, filed 6/21/2006, arguing to traverse the art rejection based on the limitations of claims 2, 14, 28, 37, and 46 (*Amendment, Pages 8-9*). The applicant's arguments have been fully considered but are moot with respect to the new grounds of rejection further in view of Eide (*"Valet: An Intelligent Unix Shell Interface," 1995*).

2. In response to the cancellation of claims 24-27 and 33-36, the examiner has withdrawn the previous 35 USC 112, first paragraph rejection directed towards a lack of written description.

Claim Rejections - 35 USC § 112

3. **Claims 37-45** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to **Claim 37**, the specification does not disclose a method that compares a partially input portion of a textual command to stored abbreviated command to determine a

probable subset of the complete commands. Although the specification does mention displaying a probable subset of textual commands for a partially input command string (*Page 9, Lines 14-17*), there is *no mention of comparing the partially input string to stored abbreviated commands*. Rather, the disclosure recites that such a displayed subset is based strictly on frequency of command use (*Page 9, Lines 14-17*). Thus, Claim 37 fails to comply with the written description requirement.

Dependent claims 38-45 fail to overcome the 35 U.S.C. 112, first paragraph rejection with respect to claim 37, and thus, also are rejected as failing to comply with the written description requirement. It is also noted that the subject matter of these dependent claims is not disclosed in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 2-5, 9-22, 28-31, and 37-47** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et al (*U.S. Patent: 5,974,413*) in view of Eide ("*Valet: An Intelligent Unix Shell Interface*," 1995).

With respect to **Claim 2**, Beauregard discloses:

Receiving an abbreviated textual command in a natural language search engine (*text input, Col. 7, Line 58- Col. 8, Line 49; command code words, Col. 15, Lines 18-58; and wordbase search, Col. 16, Line 65- Col. 17, Line 31*);

While receiving the abbreviated textual command performing the steps of:

Searching a natural language database that stores a data set of abbreviated textual commands and associated application commands (*searching a "wordbase" database containing command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31*);

Displaying a list of probable complete commands matching the currently received portion of the abbreviated textual command (*displaying multiple commands in a window that may correspond to a entered command word, Col. 42, Lines 27-50*).

Although Beauregard teaches a means for presenting a list of probable commands to a user and further discloses recording command history information (*Col. 17, Lines 16-31*), Beauregard does not specifically suggest utilizing the history information in determining the one or more probable commands. Eide, however, recites a means for determining probable input commands that utilizes a command history (*user input history used in determining a text command, Pages 28-31*). Eide further teaches the ability to perform a command search process similar to that of the claimed invention while receiving a textual input command (*pages 37-38*).

Beauregard and Eide are analogous art because they are from a similar field of endeavor in text command systems. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard with the means for determining probable input commands during text command reception utilizing a command history as taught

by Ramaswamy in order to reduce tedium and typing errors in command entry while increasing command match frequency (*Eide, Pages 29 and 37*).

With respect to **Claim 3**, Beauregard further discloses:

If a user selects a complete command from the list, then setting the complete command as the abbreviated textual command, and executing the associated application command (*selection of a displayed script command and script execution, Col. 43, Lines 1-13*).

With respect to **Claim 4**, Beauregard additionally recites:

If a user does not select a complete command from the list, then receiving an entire abbreviated textual command in the natural language search engine (*no match is found and a next action word is accepted, Col. 18, Lines 1-4*).

With respect to **Claim 5**, Eide further recites:

If the abbreviated textual command has an exact match in the data set, then setting the exact match as a user command (*Pages 37-38*);

If the abbreviated textual command does not have an exact match in the data set, then analyzing historical preferences to determine if the abbreviated textual command has a probable match in the data set (*misspelled command corrections, Pages 94-95*);

If the abbreviated textual command has a probable match in the data set, then setting the probable match as the user command (*Pages 94-95 and returning a single probable command*);

If the abbreviated textual command does not have a probable match in the data set then presenting a list of possible command, receiving a command choice and setting the command choice as the user command (suggest probable command, Pages 94-95); and

Executing the command (*Pages 37-38*).

With respect to **Claim 9**, Beauregard further discloses:

The abbreviated textual command has a first component and a second component, wherein the first component represents a desired application command, and the second component represents a desired application tag (text command and application identifying tag, Col. 11, Lines 18-26); and

The natural language database stores a data set of abbreviated textual commands and associated application commands and tags (*database storing command text and application tags, Col. 34, Lines 8-18*).

With respect to **Claim 10**, Beauregard further discloses:

The abbreviated textual command is entered into a graphical dialog box (*action box, Col. 27, Line 66- Col. 28, Line 9*).

With respect to **Claim 11**, Beauregard further discloses:

The natural language search engine can receive the abbreviated textual command while any of the software applications are executing (*Col. 10, Lines 3-8*).

With respect to **Claim 12**, Eide further discloses utilizing history data in misspelling correction (*Pages 94-95*).

With respect to **Claim 13**, Eide further recites:

The list of possible commands includes a set of generic application commands (*Page 97*).

With respect to **Claim 14**, Beauregard in view of Eide teaches the software application launching method utilizing history information, as applied to Claim 2. Also, Beauregard further discloses:

A plurality of software applications (*computer applications, Col. 7, Line 58- Col. 8, Line 27*);

An input device (*Col. 8, Lines 28-39*);

A natural language search engine operable to receive a two-part keystroke combination from the input device, the two-part keystroke combination having a first component and a second component (*receiving any number of keystrokes as a natural language input wherein a two part keystroke would be within the scope of the teachings of Beauregard based on a desired user codeword, Col. 8, Lines 50-63 and Col. 9, Lines 61-63; "wordbase" database containing command code words and associated service scripts, Col. 16, Line 65- Col. 17, Line 31; and text command and application identifying tag, Col. 11, Lines 18-26*); and

The natural language search engine being further operable to match the first and second components with a desired application command and tag (*searching a database using a text command and an application/file identifying tag, Col. 11, Lines 18-26*), execute the desired application command (*command execution, Col. 8, Line 64- Col. 9, Line 4*), and retrieve data associated with the application command using the desired application tag (*service script retrieval, Col. 17, Lines 16-31*).

Beauregard does not specifically suggest that an entered text command format consists of two portions pertaining to a particular application and a particular command, however Eide teaches such a command format (*cat_f1 command, wherein "cat" is a Unix command for viewing a text file and f1 specifies a memory location of a particular file application, Page 51*).

Beauregard and Eide are analogous art because they are from a similar field of endeavor in text command systems. Thus, it would have been obvious to one of ordinary skill in the art, at

the time of invention, to modify the teachings of Beauregard with the command format taught by Eide in order to implement an intelligent Unix compatible interface (*Eide, Abstract*) that is capable of reducing tedium and typing errors in command entry while increasing command match frequency (*Eide, Pages 29 and 37*).

With respect to **Claim 15**, Beauregard further discloses:

Executing the application command launches a software application (*launching application programs, Col. 8, Line 64- Col. 9, Line 4*).

With respect to **Claim 16**, Beauregard further discloses:

A natural language database configured to store a data set of keystroke combinations and associated application commands, the natural language database being used by the natural language search engine to match the keystroke combination with the desired application command (*action words stored in a "wordbase" database that is searched for a matching command, Col. 16, Line 65- Col. 17, Line 31*).

With respect to **Claim 17**, Eide teaches command probability based on a user history, as applied to Claim 2.

Claim 18 contains subject matter similar to Claim 11, and thus, is rejected for the same reasons.

Claim 19 contains subject matter similar to Claim 10, and thus, is rejected for the same reasons.

With respect to **Claim 20**, Beauregard shows:

A home screen that is a graphical interface between a user and the natural language search engine (*interface, Fig. 14; and a desktop environment featuring the interface, Fig. 16*).

With respect to **Claim 21**, Beauregard discloses:

The home screen includes an icon ribbon having a plurality of icons, and wherein the user may launch one of the software applications by either selecting one of the icons or entering a keystroke combination (*desktop environment having a plurality of icons, Fig. 16; and launching application programs, Col. 8, Line 64- Col. 9, Line 4*).

With respect to **Claim 22**, Beauregard discloses:

Presenting the user with a list of likely command choices (*displaying multiple commands in a window that may correspond to a entered command word, Col. 42, Lines 27-50*).

With respect to **Claim 28**, Beauregard in view of Eide teaches the software application launching method and system utilizing command history information, as applied to Claim 14.

Also, Beauregard further discloses:

Displaying an icon ribbon having a plurality of icons on the graphical input device (Fig. 16); and

If a user selects one of the icons via the graphical input device, then executing an application command associated with the icon (*computer desktop environment, Fig. 16; and launching an application with a mouse click, Col. 5, Lines 41-56*).

Claims 29-31 contain subject matter similar to claims 9-11, respectively, and thus, are rejected for the same reasons.

Claim 37 contains subject matter similar to Claim 2, and thus, is rejected for the same reasons.

With respect to **Claim 38**, Eide further recites:

Displaying the probable subset of the complete commands to the user (Page 37).

With respect to **Claim 39**, Eide additionally recites:

Receiving an indication of which of the displayed complete commands a user chooses and executing the chosen complete command (*Page 37*).

With respect to **Claim 40**, Eide further discloses:

Receiving a further portion of the abbreviated textual command and narrowing the probable subset based on the further portion received (*Page 37*).

With respect to **Claim 41**, Eide recites:

When the probable subset consists of only one complete command, executing that one complete command (*Page 37*).

With respect to **Claim 42**, Beauregard further discloses uses-defined textual commands (*Col. 9, Lines 19-22*).

With respect to **Claim 43**, Eide discloses the command history information as applied to Claim 2.

With respect to **Claims 44-45**, Eide recites past commands selected more than half of the time (*Pages 29-30; Pages 37-38; Pages 94-95*).

Claim 46 contains subject matter similar to Claim 14, and thus, is rejected for the same reasons. Eide further teaches the use of a delimiter in command input (*Page 51*).

With respect to **Claim 47**, Eide teaches the use of a delimiter (space) in an input command as applied to Claim 46.

6. **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et al (*U.S. Patent: 5,974,413*) in view of Eide (*"Valet: An Intelligent Unix Shell Interface," 1995*), and further in view of Ramaswamy et al (*U.S. Patent: 6,622,119*).

With respect to **Claim 6**, Beauregard in view of Eide teaches the software application launching method utilizing history information, as applied to Claims 2 and 5. Beauregard in view of Eide does not specifically suggest probability factors associated with historical command preferences nor the determination of a probably command as having greater than a threshold probability value however, Ramaswamy further discloses:

The step of analyzing historical preferences is performed using a set of probability factors that are generated based on historical preferences, where the abbreviated textual command has a probable match in the data set when a probability factor associated with the probable match is greater than a predetermined value (*probabilities based on user history, Col. 5, Lines 19-45; Col. 6, Lines 11-28; and probability threshold, Col. 8, Lines 3-24*).

Beauregard, Eide, and Ramaswamy are analogous art because they are from a similar field of endeavor in language command systems. Thus, it would have been obvious to one of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard with the means for determining probable input commands utilizing a command history as taught by Ramaswamy in order to achieve improved natural language understanding accuracy through the use of user regularity scores (*Ramaswamy, Col. 1, Lines 23-33*).

With respect to **Claim 7**, Ramaswamy further discloses:

The predetermined value is defined by a user (*predetermined threshold that would inherently be set by some type of user, Col. 8, Lines 3-24*).

With respect to **Claim 8**, Ramaswamy additionally recites:

Adjusting the set of probability factors each time the abbreviated textual command is entered into the hand-held device (*using input commands to adapt command prediction for a particular user, Col. 3, Lines 14-26; Col. 9, Lines 9-31*).

7. **Claims 23 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Beauregard et al (*U.S. Patent: 5,974,413*) in view of Eide ("*Valet: An Intelligent Unix Shell Interface,*" 1995), and further in view of Will (*U.S. Patent: 5,479,408*).

With respect to **Claim 23**, Beauregard in view of Eide teaches the software application launching method utilizing command history information, as applied to Claim 14. Beauregard in view of Eide does not teach the use of a trackwheel input device, however Will teaches the use of such an input device (*thumbwheel, Col. 3, Lines 1-16*).

Beauregard, Eide, and Will are analogous art because they are from a similar field of endeavor in text processing systems. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to modify the teachings of Beauregard in view of Eide with the thumbwheel input device taught by Will in order to increase the ease of interaction with a text processing system (*Will, Col. 3, Lines 1-16*).

Claim 32 contains subject matter similar to Claim 23, and thus, is rejected for the same reasons.


Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (571) 272-7632. The examiner can normally be reached on M-Th, 7:30-5:00, F, 7:30-4, Off Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached at (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James S. Wozniak
8/22/2006


• DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600